

IN THE COURT OF APPEALS OF TENNESSEE  
AT NASHVILLE  
May 6, 2003 Session

**EASTMAN CHEMICAL COMPANY v. LOREN L. CHUMLEY**

**Appeal from the Chancery Court for Davidson County  
No. 99-2327-III Ellen Hobbs Lyle, Chancellor**

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**No. M2002-02114-COA-R3-CV - Filed January 12, 2004**

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This appeal involves a dispute between a chemical manufacturer and the Tennessee Department of Revenue concerning whether the use tax exemption for industrial machinery covers the catalysts used in its manufacturing processes. The manufacturer paid use tax during 1995, 1996, and 1997 and then sought a refund for those three tax years. After the Department denied its claim for a refund, the manufacturer filed suit in the Chancery Court for Davidson County seeking a refund of \$1.25 million. The court determined that the catalysts qualified as industrial machinery and awarded the manufacturer a refund of the use taxes paid on the catalysts. The Department has appealed. We have determined that the catalysts do not fit within the industrial machinery exemption in Tenn. Code Ann. § 67-6-102(a)(13)(A) (1998), and, therefore, we reverse the trial court.

**Tenn. R. App. P. 3 Appeal as of Right; Judgment of the Chancery Court Reversed**

WILLIAM C. KOCH, JR., J., delivered the opinion of the court, in which BEN H. CANTRELL, P.J., M.S., and WILLIAM B. CAIN, J., joined.

Paul G. Summers, Attorney General and Reporter; Michael E. Moore, Solicitor General; and Michael W. Catalano, Associate Solicitor General, for the appellant, Loren L. Chumley, Commissioner of Revenue of the State of Tennessee.

Charles A. Trost, Michael G. Stewart, and Brett R. Carter, Nashville, Tennessee, for the appellee, Eastman Chemical Company.

**OPINION**

**I.**

Eastman Chemical Company manufactures chemical products and plastics at its plant located in Kingsport, Tennessee. Eastman regularly uses three types of catalysts<sup>1</sup> in its various

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<sup>1</sup>A catalyst is “[a] substance which when present in small amounts increases the rate of a chemical reaction or process but which is chemically unchanged by the reaction.” 2 THE OXFORD ENGLISH DICTIONARY 968 (2d ed. 1989).

manufacturing processes – “fixed bed” catalysts,<sup>2</sup> “batch” catalysts,<sup>3</sup> and cobalt hydrate.<sup>4</sup> From January 1995 through December 1997, Eastman paid the State of Tennessee \$1,254,976.48 in use tax for the various catalysts used during that period.

Eastman ceased paying use tax on the catalysts used in its manufacturing processes on January 1, 1998, because it decided that they were exempt from taxation either as industrial materials or as industrial machinery. On December 29, 1998, Eastman filed a claim for a refund with the Tennessee Department of Revenue asserting that it erroneously paid use tax on the catalysts because they were exempt from taxation either as industrial materials or industrial machinery.<sup>5</sup> On February 19, 1999, the Department, relying on *Quaker Oats Co. v. Jackson*, 745 S.W.2d 269 (Tenn. 1988), denied Eastman’s claimed exemption.

On August 17, 1999, Eastman filed a complaint in the Chancery Court for Davidson County against the Commissioner of Revenue,<sup>6</sup> seeking a refund of \$1,254,976.48 for tax years 1995, 1996, and 1997.<sup>7</sup> Eastman alleged that the catalysts that the Department had taxed were exempt from use tax as industrial machinery as defined in Tenn. Code Ann. § 67-6-102(a)(13) (1998)<sup>8</sup> and were,

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<sup>2</sup>“Fixed bed” catalysts, in the form of pellets, are in manufacturing vessels that have holes or screens at the top and filters at the bottom. Eastman pours the product’s ingredients into the top of the vessel, and the ingredients then pass through the catalyst bed under conditions designed to promote the chemical reactions necessary to produce the chemical product. The product is withdrawn from the bottom of the vessel. The “fixed bed” catalysts remain in the vessel to be reused until they become contaminated or otherwise lose their ability to increase the rate of the desired chemical reaction. “Fixed bed” catalysts may be reused for a period as short as three months or as long as twenty years.

<sup>3</sup>“Batch” catalysts circulate through a closed loop system and pass through the reaction chamber where they come into contact with the product ingredients and promote the chemical reaction necessary to produce the desired product. The completed reaction produces a slurry containing the chemical products and the “batch” catalysts which is then filtered to separate the catalysts from the product. These “batch” catalysts may be reused until contaminated and have life spans ranging from seven to thirty days.

<sup>4</sup>Eastman also used the cobalt hydrate catalyst in a closed loop system. It dissolves in the fluid reaction medium, and then the product materials react with the cobalt hydrate to form reaction intermediates that, in turn, react again to regenerate the original catalytic material. The reaction process produces a slurry of solid reaction product in a liquid catalytic solution. The slurry is then filtered to separate the solid reaction product from the liquid catalytic solution. The liquid catalytic solution is then recycled back into the reactor for reuse. A small amount of the cobalt hydrate is retained in the solid reaction product.

<sup>5</sup>Specifically, Eastman sought a \$201,877.34 refund for cobalt hydrate as an “industrial material,” a \$563,591.10 refund for the “batch” catalysts as “industrial machinery,” and a \$489,508.04 refund for the “fixed bed” catalysts as “industrial machinery.”

<sup>6</sup>In accordance with Tenn. R. App. P. 19(c), Loren L. Chumley has been substituted as a party in the place of former Commissioner Ruth E. Johnson.

<sup>7</sup>Pursuant to Tenn. Code Ann. § 67-1-1802(c)(1) (2003), upon denial by the commissioner of a claim for refund, a taxpayer may file suit against the commissioner within six months in the appropriate chancery court for a refund.

<sup>8</sup>The Tennessee General Assembly’s 2003 amendments to Tenn. Code Ann. § 67-6-102 caused the definition of industrial machinery to be renumbered as Tenn. Code Ann. § 67-6-102(a)(14) (2003), and, effective July 1, 2004, as Tenn. Code Ann. § 67-6-102(25). For the sake of clarity, we will refer to the definition using Tenn. Code Ann. § 67-6-102(a)(13).

therefore, exempt from use tax. On July 17, 2001, Eastman amended its complaint to allege in the alternative that the cobalt hydrate catalysts were exempt as industrial materials.<sup>9</sup>

Eastman filed a motion for summary judgment in July 2001,<sup>10</sup> and the Commissioner responded with her own motion for partial summary judgment.<sup>11</sup> Both parties filed statements of material undisputed facts in accordance with Tenn. R. Civ. P. 56.03 as well as supporting expert affidavits. The trial court filed a memorandum opinion on June 24, 2002. Relying on *AFG Indus., Inc. v. Cardwell*, 835 S.W.2d 583 (Tenn. 1992), the trial court determined that the catalysts used by Eastman were exempt from the use tax as industrial machinery. On July 29, 2002, the trial court entered a final order granting Eastman's motion for summary judgment and declaring that Eastman was entitled to a refund of the use taxes it had paid on its catalysts.<sup>12</sup> The Commissioner has appealed.

## II.

### THE RULES OF CONSTRUCTION OF REVENUE STATUTES

The responsibility for determining what a statute means rests with the courts. *Roseman v. Roseman*, 890 S.W.2d 27, 29 (Tenn. 1994); *Realty Shop, Inc. v. R.R. Westminster Holding, Inc.*, 7 S.W.3d 581, 601 (Tenn. Ct. App. 1999). The courts must ascertain and then give the fullest possible effect to the General Assembly's purpose in enacting the statute as reflected in the statute's language. *Jones v. Garrett*, 92 S.W.3d 835, 839 (Tenn. 2002); *Robinson v. LeCorps*, 83 S.W.3d 718, 722 (Tenn. 2002). In the process, they must avoid constructions that unduly expand or restrict the statute's application. *Poper ex rel. Poper v. Rollins*, 90 S.W.3d 682, 684 (Tenn. 2002); *Memphis Publ'g Co. v. Cherokee Children & Family Servs.*, 87 S.W.3d 67, 74 (Tenn. 2002). The goal is to construe a statute in a way that avoids conflict and facilitates the harmonious operation of the law. *Frazier v. East Tenn. Baptist Hosp.*, 55 S.W.3d 925, 928 (Tenn. 2001); *LensCrafters, Inc. v. Sundquist*, 33 S.W.3d 772, 777 (Tenn. 2000).

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<sup>9</sup>At the time of this dispute, Tennessee's sales and use tax statutes also exempted raw materials under Tenn. Code Ann. § 67-6-206(b)(3) (1998) and the sale or use of industrial materials under Tenn. Code Ann. § 67-6-102(a)(24)(E)(i) (1998).

<sup>10</sup>Eastman failed to state the grounds for its summary judgment motion in its motion despite the requirement in Tenn. R. Civ. P. 7.02(1) that motions must "state with particularity the grounds therefor." Including the grounds for a summary judgment motion in a separate memorandum of law does not comply with Tenn. R. Civ. P. 7.02(1). This memorandum, by operation of Tenn. R. App. P. 24(a), is not a part of the appellate record. See *Pendleton v. Mills*, 73 S.W.3d 115, 120 n. 7 (Tenn. Ct. App. 2001); *Robinson v. Clement*, 65 S.W.3d 632, 635 n. 2 (Tenn. Ct. App. 2001). As a result of this omission, we do not know whether Eastman included in its motion its alternative claim that the cobalt hydrate catalysts were also exempt as industrial materials.

<sup>11</sup>The Commissioner moved for partial summary judgment on the issue of whether Eastman's catalysts were industrial machinery. The Commissioner did not address the issue of whether the cobalt hydrate catalysts were industrial materials.

<sup>12</sup>The trial court did not address the issue of whether the cobalt hydrate catalysts were exempt as industrial materials. Accordingly, we can infer that Eastman only moved for summary judgment on the issue of whether its catalysts were exempt as industrial machinery. The success of Eastman's industrial materials claim is remote in light of the Tennessee Supreme Court's denial of a similar claim because the catalysts were not "consumed" during the manufacturing process. *Quaker Oats Co. v. Jackson*, 745 S.W.2d at 273.

The courts construe revenue statutes using the general rules of statutory construction as well as several specialized rules. Their construction of a statute is more likely to conform with the General Assembly's purpose if they approach the statute presuming that the General Assembly chose its words purposely and deliberately, *Johnson v. LeBonheur Children's Med. Ctr.*, 74 S.W.3d 338, 343 (Tenn. 2002); *SunTrust Bank v. Johnson*, 46 S.W.3d 216, 224 (Tenn. Ct. App. 2000), and that these words convey the meaning that the General Assembly intended them to convey. *Limbaugh v. Coffee Med. Ctr.*, 59 S.W.3d 73, 83 (Tenn. 2001); *BellSouth Telecomms., Inc. v. Greer*, 972 S.W.2d 663, 673 (Tenn. Ct. App. 1997). Thus, the courts must construe statutes as they find them. *Berryhill v. Rhodes*, 21 S.W.3d 188, 195 (Tenn. 2000); *Jackson v. Jackson*, 186 Tenn. 337, 342, 210 S.W.2d 332, 334 (1948).

The search for a statute's meaning should begin with the words of the statute itself. *Blankenship v. Estate of Bain*, 5 S.W.3d 647, 651 (Tenn. 1999); *Freedom Broadcasting of Tenn., Inc. v. Tennessee Dep't of Revenue*, 83 S.W.3d 776, 781 (Tenn. Ct. App. 2002). The courts must give these words their natural and ordinary meaning unless the context in which they are used requires otherwise. *Nashville Golf & Athletic Club v. Huddleston*, 837 S.W.2d 49, 53 (Tenn. 1992); *Lockheed Martin Energy Sys., Inc. v. Johnson*, 78 S.W.3d 918, 923 (Tenn. Ct. App. 2002). Because words are known by the company they keep, *State ex rel. Comm'r of Transp. v. Medicine Bird Black Bear White Eagle*, 63 S.W.3d 734, 754-55 (Tenn. Ct. App. 2001), the courts should construe a statute's words in the context of the entire statute and in light of the statute's general purpose. *State v. Goodman*, 90 S.W.3d 557, 564 (Tenn. 2002); *BellSouth Telecomms., Inc. v. Greer*, 972 S.W.2d at 673. When the meaning of a statute's language is clear, the courts must interpret the statute as written, *Kradel v. Piper Indus., Inc.*, 60 S.W.3d 744, 749 (Tenn. 2001); *ATS Southeast, Inc. v. Carrier Corp.*, 18 S.W.3d 626, 629-30 (Tenn. 2000), rather than using the tools of construction to give the statute another meaning. *Limbaugh v. Coffee Med. Ctr.*, 59 S.W.3d at 83; *Gleaves v. Checker Cab Transit Corp.*, 15 S.W.3d 799, 803 (Tenn. 2000).

Statutes, however, are not always free from ambiguity. When courts encounter ambiguous statutory language – language that can reasonably have more than one meaning<sup>13</sup> – they must look to the entire statute, the statutory scheme in which the statute appears, and elsewhere to ascertain the General Assembly's intent and purpose. *State v. Walls*, 62 S.W.3d 119, 121 (Tenn. 2001); *State v. McKnight*, 51 S.W.3d 559, 566 (Tenn. 2001). One of the sources frequently looked to for guidance is the statute's legislative history. *State v. McKnight*, 51 S.W.3d at 566; *Bowden v. Memphis Bd. of Educ.*, 29 S.W.3d 462, 465 (Tenn. 2000). The court must, however, be cautious about consulting legislative history. *BellSouth Telecomms., Inc. v. Greer*, 972 S.W.2d at 673. A statute's meaning must be grounded in its text. Thus, comments made during the General Assembly's debates cannot provide a basis for a construction that is not rooted in the statute's text. *D. Canale & Co. v. Celauro*, 765 S.W.2d 736, 738 (Tenn. 1989); *Townes v. Sunbeam Oster Co.*, 50 S.W.3d 446, 453 n.6 (Tenn. Ct. App. 2001). When a statute's text and the comments made during a legislative debate diverge, the text controls. *BellSouth Telecomms., Inc. v. Greer*, 972 S.W.2d at 674.

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<sup>13</sup> *LeTellier v. LeTellier*, 40 S.W.3d 490, 498 (Tenn. 2001); *Bryant v. HCA Health Servs. of N. Tennessee, Inc.*, 15 S.W.3d 804, 809 (Tenn. 2000).

In addition to these general principles of statutory construction, the courts must also consider the rules of construction specifically applicable to tax statutes. Statutes imposing a tax should be construed strictly against the government. *Steele v. Industrial Dev. Bd.*, 950 S.W.2d 345, 348 (Tenn. 1997); *Covington Pike Toyota, Inc. v. Cardwell*, 829 S.W.2d 132, 135 (Tenn. 1992); *American Airlines, Inc. v. Johnson*, 56 S.W.3d 502, 504 (Tenn. Ct. App. 2000). However, statutes granting exemptions from taxation are in derogation of the State's sovereignty, *Anderson v. Security Mills*, 175 Tenn. 197, 205, 133 S.W.2d 478, 481 (1939), and are construed strictly against the taxpayer. *AFG Indus., Inc. v. Cardwell*, 835 S.W.2d at 584-85; *Freedom Broadcasting of Tenn., Inc. v. Tennessee Dep't of Revenue*, 83 S.W.3d at 781; *SunTrust Bank v. Johnson*, 46 S.W.3d at 224. Therefore, an exemption from taxation must "positively appear" in the statutes themselves, and no subject of taxation will be excluded if it comes within the "fair purview" of the taxing statutes. *Hyatt v. Taylor*, 788 S.W.2d 554, 556 (Tenn. 1990); *English's Estate v. Crenshaw*, 120 Tenn. 531, 537-38, 110 S.W. 210, 211 (1908); *Nashville Clubhouse Inn v. Johnson*, 27 S.W.3d 542, 544 (Tenn. Ct. App. 2000).

The tasks of statutory construction and applying a statute to a particular set of facts involve questions of law rather than questions of fact. *King v. Pope*, 91 S.W.3d 314, 318 (Tenn. 2002); *Patterson v. Tennessee Dep't of Labor and Workforce Dev.*, 60 S.W.3d 60, 62 (Tenn. 2001). Accordingly, appellate courts must review a trial court's construction of a statute or application of a statute to a particular set of facts de novo without a presumption of correctness. *Poper ex rel. Poper v. Rollins*, 90 S.W.3d at 684; *Leab v. S & H Mining Co.*, 76 S.W.3d 344, 348 (Tenn. 2002).

### III.

#### THE APPLICATION OF TENN. CODE ANN. § 67-6-102(a)(13)(A) TO EASTMAN'S CATALYSTS

The sole issue presented by this appeal is whether the catalysts used by Eastman to manufacture plastics and chemical products fit within the industrial machinery exemption in Tenn. Code Ann. § 67-6-102(a)(13). The Commissioner asserts that the trial court misinterpreted the exemption for industrial machinery because catalysts do not function as part of an industrial machine. Eastman responds that the trial court properly interpreted the industrial machinery exemption in light of the Tennessee Supreme Court's definition of "apparatus" in the *AFG Indus., Inc. v. Cardwell* decision. We have determined that the exemption for industrial machinery in Tenn. Code Ann. § 67-6-102(a)(13)(A) cannot be extended to include the catalysts Eastman uses in its manufacturing processes.

#### A.

Tennessee's current sales and use tax began in 1947 with the enactment of the Tennessee Retailers' Sales Tax Act.<sup>14</sup> The Act declared that it was a taxable privilege to "store[ ] for use or consumption in this State any item or article of tangible personal property . . ."<sup>15</sup> While the Act did not explicitly exempt "industrial machinery," it exempted "industrial materials" that became a

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<sup>14</sup> Act of Jan. 27, 1947, ch.3, 1947 Tenn. Pub. Acts 22.

<sup>15</sup> Act of Jan. 27, 1947, ch. 3, § 3, 1947 Tenn. Pub. Acts 22, 26. An expanded version of this provision is currently codified at Tenn. Code Ann. § 67-6-201(1)-(3) (2003).

component part of the finished product or that were used directly in fabricating, converting, or processing the finished product.<sup>16</sup>

Over the next forty-five years, the Tennessee General Assembly expanded the scope of the sales and use tax exemptions applicable to the manufacturing process. In 1959, the General Assembly provided for a reduced tax rate for industrial machinery but limited the reduced rate to “machinery for new and expanded industry.”<sup>17</sup> In 1963, the General Assembly expanded the exemption by removing its limitation to new and expanded industry.<sup>18</sup> In 1980, the General Assembly decided to phase out the sales and use tax on industrial machinery completely.<sup>19</sup>

The Tennessee General Assembly broadened the “industrial machinery” exemption in two other ways. First, it broadened the basic “industrial machinery” exemption to include (1) repair parts for the machinery,<sup>20</sup> (2) air and water pollution control equipment used in conjunction with the industrial machinery,<sup>21</sup> (3) “apparatus and equipment with all associated parts, appurtenances, and accessories”,<sup>22</sup> and (4) hydraulic fluids and lubricating oils needed to use and operate the industrial machinery.<sup>23</sup>

Second, the Tennessee General Assembly enacted nine, more specific exemptions for defined types of industrial machinery. These exemptions include: machinery used to remanufacture industrial machinery,<sup>24</sup> machines used to distribute utility services and water during the fabrication

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<sup>16</sup> Act of Jan. 27, 1947, ch. 3, § 2(c)(2), 1947 Tenn. Pub. Acts 22, 24. See Tenn. Code Ann. §§ 67-6-102(a)(25)(E)(i), -206(b)(3) (2003).

<sup>17</sup> The General Assembly limited the exemption to “machinery used directly in the manufacturing process, which is incorporated for the first time into plant facilities established in this State, and which does not replace machinery in such plants.” Act of Feb. 5, 1959, ch. 15, § 1, 1959 Tenn. Pub. Acts 130, 130.

<sup>18</sup> The new exemption applied to “machinery, exclusive of repair parts therefor, which is directly and primarily utilized in fabricating or processing tangible personal property for resale, where such use is by one who engages in such fabricating or processing as his principal business.” Act of Mar. 20, 1963, ch. 172, § 1, 1963 Tenn. Pub. Acts 768, 769, codified at Tenn. Code Ann. § 67-6-102(a)(13)(A).

<sup>19</sup> Act of Apr. 18, 1980, ch. 871, § 1, 1980 Tenn. Pub. Acts 1242, 1242.

<sup>20</sup> Act of Jan. 27, 1965, ch. 3, § 1, 1965 Tenn. Pub. Acts 20, 20, codified at Tenn. Code Ann. § 67-6-102(a)(13)(A).

<sup>21</sup> Act of Apr. 3, 1968, ch. 556, § 1, 1968 Tenn. Pub. Acts 512, 512-13; *see also* Act of May 9, 1984, ch. 762, § 3, 1984 Tenn. Pub. Acts 481, 482; Act of June 20, 1991, ch. 503, § 3, 1991 Tenn. Pub. Acts 879, 881 codified at Tenn. Code Ann. § 67-6-102(a)(13)(A), (F).

<sup>22</sup> Act of May 19, 1984, ch. 762, § 1, 1984 Tenn. Pub. Acts 481, 482, codified at Tenn. Code Ann. § 67-6-102(a)(13)(A).

<sup>23</sup> Act of Apr. 28, 1992, ch. 917, § 1, 1992 Tenn. Pub. Acts 903, 903, codified at Tenn. Code Ann. § 67-6-102(a)(13)(A).

<sup>24</sup> Act of Mar. 6, 1980, ch. 602, § 1, 1980 Tenn. Pub. Acts 403, 403, codified at Tenn. Code Ann. § 67-6-102(a)(13)(B).

and processing of tangible personal property for resale,<sup>25</sup> machines used to transport raw materials and finished products during the manufacturing process,<sup>26</sup> machinery used in the printing business,<sup>27</sup> machinery used to manufacture trusses, window units, and door units for resale as part of a building supply business,<sup>28</sup> machinery involved with the extraction of minerals from land,<sup>29</sup> machinery used to fabricate or process prescription eyeglasses dispensed in other states,<sup>30</sup> machinery used to package manufactured items,<sup>31</sup> and material handling equipment and racking systems.<sup>32</sup>

## B.

Taxpayers, like Eastman, seeking an exemption from a generally applicable tax have the burden of establishing that they are entitled to the claimed exemption. *Covington Pike Toyota, Inc. v. Cardwell*, 829 S.W.2d at 135; *Tibbals Flooring Co. v. Huddleston*, 891 S.W.2d 196, 198 (Tenn. 1994); *Nuclear Fuel Servs., Inc. v. Huddleston*, 920 S.W.2d 659, 661 (Tenn. Ct. App. 1995). The exemption must be expressed in clear language that includes the taxpayer. *Sears, Roebuck & Co. v. Woods*, 708 S.W.2d 374, 378 (Tenn. 1986). An exemption will not be read into a taxing statute by implication, and any well-founded doubt as to the existence of the exemption will be fatal to the taxpayer's claim. *Kingsport Publ'g Co. v. Olsen*, 667 S.W.2d 745, 746 (Tenn. 1984); *Hamilton Nat'l Bank v. McCanless*, 176 Tenn. 570, 574, 144 S.W.2d 768, 769-770 (1940).

Eastman's catalysts do not fit within one of the nine specific exemptions in Tenn. Code Ann. § 67-6-102(a)(13). Accordingly, based on Tenn. Code Ann. § 67-6-102(a)(13)(A) as it read when Eastman claimed its exemption, Eastman can prevail only if it establishes (1) that its principal business is fabricating or processing tangible personal property for resale and consumption off the

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<sup>25</sup> Act of May 9, 1984, ch. 762, § 3, 1984 Tenn. Pub. Acts 481, 482, codified at Tenn. Code Ann. § 67-6-102(a)(13)(D)(i).

<sup>26</sup> Act of May 9, 1984, ch. 762, § 3, 1984 Tenn. Pub. Acts 481, 482, codified at Tenn. Code Ann. § 67-6-102(a)(13)(D)(ii).

<sup>27</sup> Act of Feb. 21, 1985, ch. 25, § 3, 1985 Tenn. Pub. Acts 37, 37, codified at Tenn. Code Ann. § 67-6-102(a)(13)(C); *see also* Act of May 12, 1993, ch. 409, § 1, 1993 Tenn. Pub. Acts 704, 704; Act of Mar. 28, 1996, ch. 729, § 1, 1996 Tenn. Pub. Acts 241, 241-42, codified at Tenn. Code Ann. § 67-6-102(a)(13)(C).

<sup>28</sup> Act of Apr. 3, 1986, ch. 815, § 1, 1986 Tenn. Pub. Acts 812, 812, codified at Tenn. Code Ann. § 67-6-102(a)(13)(A).

<sup>29</sup> Act of Apr. 16, 1986, ch. 924, § 1, 1986 Tenn. Pub. Acts 1189, 1189, codified at Tenn. Code Ann. § 67-6-102(a)(13)(A).

<sup>30</sup> Act of Feb. 17, 1994, ch. 552, § 2, 1994 Tenn. Pub. Acts 182, 183, codified at Tenn. Code Ann. § 67-7-102(a)(13)(G).

<sup>31</sup> Act of Apr. 20, 1995, ch. 185, § 1, 1995 Tenn. Pub. Acts 264, 264, codified at Tenn. Code Ann. § 67-6-102(a)(13)(E).

<sup>32</sup> Act of May 26, 1995, ch. 544, §§ 3, 4, 1995 Tenn. Pub. Acts 1050, 1051; *see also* Act of Mar. 30, 1998, ch. 732, § 1, 1998 Tenn. Pub. Acts 332, 332, codified at Tenn. Code Ann. § 67-6-102(a)(13)(H), (I).

premises,<sup>33</sup> (2) that the property for which it claims the exemption is “machinery, apparatus and equipment with all associated parts, appurtenances and accessories,”<sup>34</sup> and (3) that this property is “necessary to, and primarily for, the fabrication or processing of tangible personal property for resale and consumption off the premises.”<sup>35</sup> There is no dispute that Eastman has established the first and third elements of its claim. Thus, the pivotal inquiry is whether the catalysts Eastman uses to produce chemical products and plastics fit within the scope of the plain meaning of “machinery, apparatus and equipment with all associated parts, appurtenances and accessories”

Any analysis of Tenn. Code Ann. § 67-6-102(a)(13)’s definition of industrial machinery must necessarily begin with the words of the statute itself. If the statute clearly and unambiguously includes catalysts of the type used by Eastman, then our only task is to apply the statute according to its plain meaning and uphold the trial court’s decision granting Eastman’s claimed exemption. If, however, the application of Tenn. Code Ann. § 67-6-102(a)(13) to catalysts is uncertain, we must invoke the objective rules of statutory construction to determine whether the purpose of the statute is to exempt catalysts used to manufacture tangible personal property from use taxation.

Eastman argues that Tenn. Code Ann. § 67-6-102(a)(13)(A) plainly includes the catalysts it uses at its Kingsport plant because the dictionary meaning of the word “apparatus” clearly includes “chemical operations.” We respectfully disagree with Eastman’s interpretative methodology. The meaning of individual words in a statute do not equal the meaning of the statute itself. LIEF H. CARTER & THOMAS F. BURKE, *REASON IN LAW* 71 (6th ed. 2002) (a statute’s words cannot be treated as a series of Webster’s definitions strung together); A. Raymond Randolph, *Dictionaries, Plain Meaning, and Context in Statutory Construction*, 17 Harv. J.L. & Pub. Pol’y 71, 73 (1994) (“Randolph”).

Over fifty years ago, Judge Learned Hand warned that courts should avoid making “a fortress out of the dictionary.” *Cabell v. Markham*, 148 F.2d 737, 739 (2d Cir. 1945). His observation reflects a recognition that dictionaries are not definitive sources for resolving legal questions. *Pembaur v. City of Cincinnati*, 475 U.S. 469, 481 n.9, 106 S. Ct. 1292, 1299 n.9 (1986). When used improperly, dictionaries create an illusion of certainty. *Randolph*, 17 Harv. J.L. & Pub. Pol’y, at 72.

The meaning of statutory terms must ultimately be derived from the context in which they appear. The major shortcoming of dictionaries as interpretative tools is their imperfect relationship to the statutory context.<sup>36</sup> However, dictionaries can provide a useful starting point<sup>37</sup> by helping to

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<sup>33</sup> *AT&T Corp. v. Johnson*, No. M2000-01407-COA-R3-CV, 2002 WL 31247083, at \*7 (Tenn. Ct. App. Oct. 8, 2002), *perm. app. denied* (Tenn. Feb. 24, 2003); *Freedom Broadcasting of Tenn., Inc. v. Tennessee Dep’t of Revenue*, 83 S.W.3d at 782.

<sup>34</sup> *Tibbals Flooring Co. v. Huddleston*, 891 S.W.2d at 198.

<sup>35</sup> *Nuclear Fuel Servs., Inc. v. Huddleston*, 920 S.W.2d at 661.

<sup>36</sup> Rickie Sonpal, *Old Dictionaries and New Textualists*, 71 Fordham L. Rev. 2177, 2197, 2201, 2206-07 (2003); Note, *Looking It Up: Dictionaries and Statutory Interpretation*, 107 Harv. L. Rev. 1437, 1449 (1994) (“*Looking It Up*”) (no dictionary can completely capture the particular historical and textual framework of a statutory term); James L. Weis, Comment, *Jurisprudence By Webster’s: The Role of the Dictionary in Legal Thought*, 39 Mercer L. Rev. 961, 962 (continued...)



identify the linguistically permissible meanings of a word or phrase.<sup>38</sup> But once a court identifies the possible meanings of a word or phrase, it should then narrow these possibilities in light of the context, the underlying facts, the legislative purpose, prior decisions, scientific literature, and other potentially helpful sources.<sup>39</sup>

### C.

Prior to 1984, the industrial machinery exemption was limited to “machinery . . . which is directly and primarily utilized in fabricating or processing tangible personal property for resale.” In 1984, the Tennessee General Assembly amended the exemption to cover “machinery, apparatus and equipment with all associated parts, appurtenances and accessories . . . which is necessary to, and primarily for, the fabrication or processing of tangible personal property for resale and consumption off the premises.” The General Assembly did not further define “machines, apparatus and equipment,” but Senator Milton Hamilton, the legislation’s Senate sponsor, explained the purpose of the amendment in the following manner:

Over the past several years, the existing definition of industrial machinery for the purpose of sales tax exemption has been subject to a lot of variance in interpretation by officials in the Department of Revenue. In most instances, the machine has been required to touch the product during the process of manufacturing, and in some recent instances machinery that has been considered exempt for years because of personnel changes and interpretation, some things have been taxed that were considered to be exempt in years past. The purpose of this bill is to clarify the definition so that industries coming into Tennessee, or expanding in this state, would have a uniform standard for determining whether their machinery will be taxed.

Senator Hamilton’s reference to “variances” in the interpretation of the exemption by officials in the Tennessee Department of Revenue underscores what even the most cursory reading of Tenn. Code Ann. § 67-6-102(a)(13) reveals. The language and syntax of the exemption for

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<sup>36</sup>(...continued)  
(1988).

<sup>37</sup>*Morris v. Prince George’s County*, 573 A.2d 1346, 1350 (Md. 1990); 2A NORMAN J. SINGER, STATUTES AND STATUTORY CONSTRUCTION § 46:02, at 134 (6th ed. 2000 rev.); *Looking It Up*, 107 Harv. L. Rev. at 1450.

<sup>38</sup>*State v. Holloway*, 908 P.2d 324, 327 (Or. Ct. App. 1995) (dictionaries suggest what the legislature could have meant by the terms it enacted); HENRY M. HART, JR. & ALBERT M. SACKS, THE LEGAL PROCESS 1221 (1958) (the goal of dictionaries is to identify and illustrate commonly accepted usages as clearly as possible); Samuel A. Thumma & Jeffrey L. Kirchmeier, *The Lexicon Has Become a Fortress: The United States Supreme Court’s Use of Dictionaries*, 47 Buff. L. Rev. 227, 296 (1999) (“*The Lexicon Has Become a Fortress*”); *Looking It Up*, 107 Harv. L. Rev. at 1450.

<sup>39</sup>REED DICKERSON, THE INTERPRETATION AND APPLICATION OF STATUTES 103 & n.2, 105 (1975) (contextual analysis allows courts to choose appropriate meanings from a list of possible meanings); *The Lexicon Has Become a Fortress*, 47 Buff. L. Rev. at 296.

industrial machinery is far from simple or plain. During the three tax years at issue in this case, Tenn. Code Ann. § 67-6-102(a)(13) contained approximately 1,430 words in nine subsections. The subsection at the heart of this case, Tenn. Code Ann. § 67-6-102 (a)(13)(A), is a single sentence containing 348 words. The complicated nature of the subject, the legislative draftsmanship, or both have produced a statute that is far from straightforward. Even the officials charged with administering this statute had been unable to interpret it consistently. Accordingly, we decline to accept Eastman’s argument that Tenn. Code Ann. § 67-6-102(a)(13)(A) is so clear that it requires no judicial construction or interpretation.

#### D.

Our task is to identify the Tennessee General Assembly’s reason for replacing the term “machinery” with “machinery, apparatus and equipment with all associated parts, appurtenances, and accessories.” Specifically, we must determine whether one purpose of the 1984 amendment was to broaden the definition of industrial machinery to include ingredients in the manufacturing process like catalysts. Based on our consideration of the statutory language, the legislative history of the statute, especially the 1984 amendment, and subsequent judicial interpretations of the statute, we have determined that the General Assembly did not set out in 1984 to create a tax exemption for industrial catalysts used in the manufacturing process.

We turn first to the language of the statute. Taken in context, the word “apparatus” is not free-standing. It is connected with two other nouns in the series by the conjunctive article “and” indicating that the General Assembly desired that the words be considered together. *Tennessee Manufactured Hous. Ass’n v. Metropolitan Gov’t*, 798 S.W.2d 254, 257 (Tenn. Ct. App. 1990). Thus, the item or device entitled to an exemption under Tenn. Code Ann. § 67-6-102(a)(13)(A) is not simply “apparatus;” it is “machinery, apparatus and equipment.”<sup>40</sup>

The 1984 addition of the words “apparatus” and “equipment” to the definition of industrial machinery in Tenn. Code Ann. § 67-6-102(a)(13)(A) does not necessarily reflect the General Assembly’s desire to broaden the existing exemption far beyond the legislators’ collective understanding of the meaning of “machinery.” While the dictionary definitions of “machinery,”<sup>41</sup>

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<sup>40</sup>We are mindful that the Tennessee General Assembly, on occasion, uses the word “and” when it intended to use the word “or” and that the courts will construe “and” as “or” in order to further the intent of the General Assembly. *Stewart v. State*, 33 S.W.3d 785, 792 (Tenn. 2000). We have determined that the Tennessee General Assembly chose the word “and” purposely in 1984, and that a decision to give “and” a disjunctive rather than conjunctive meaning in this case would result in expanding the scope of the industrial machinery exemption far beyond what the legislature envisioned.

<sup>41</sup>“Machinery” means “[m]achines, or the constituent parts of a machine, taken collectively.” For the purpose of this definition, a “machine” is an “apparatus, appliance, or instrument;” more specifically, “an apparatus for applying mechanical power, consisting of a number of interrelated parts, each having a definite function.” 9 THE OXFORD ENGLISH DICTIONARY 157, 159 (2d ed. 1989). Another dictionary defines “machinery” as “machines as a functioning unit” or “the constituent parts of a machine or instrument.” For the purpose of this definition, a “machine” is “a construction or organization whose parts are so connected and interrelated that it can be set in motion and perform work as a unit.” WEBSTER’S THIRD NEW INT’L DICTIONARY 1353, 1354 (1971). The Tennessee Supreme Court employed the “machines functioning as a unit” definition in *Tibbals Flooring Co. v. Olsen*, 698 S.W.2d 60, 62 (Tenn. 1985).

“apparatus,”<sup>42</sup> and “equipment”<sup>43</sup> differ slightly, they are essentially synonymous.<sup>44</sup> The use of doublets, triplets, and synonym strings is neither new nor unusual in the law. It is a rhetorical device frequently used to maximize a reader’s understanding. The practice, however, should be used with caution when drafting statutes because it creates interpretative difficulties in light of the canons of statutory construction that legislatures employ their words deliberately, that every word is to be given meaning, and that no word is to be read as mere surplusage.<sup>45</sup>

By its use of the phrase “machinery, apparatus and equipment” in Tenn. Code Ann. § 67-6-102(a)(13)(A), we conclude that the General Assembly’s purpose was to provide a tax exemption for all the connected and interrelated devices and parts in which the fabrication and processing of a manufactured item of tangible personal property are carried out. These devices must only be used during the manufacturing process. *Nuclear Fuel Servs., Inc. v. Huddleston*, 920 S.W.2d at 662. For the purpose of Tenn. Code Ann. § 67-6-102(a)(13)(A), it does not matter whether the fabricating or manufacturing process is characterized as “mechanical” (stamping, bending, shaping, mixing, etc.) or “chemical” (etching, dissolving, melting, etc.). The phrase is broad enough to include both.

The phrase “machinery, apparatus and equipment” is broad enough to include (1) the devices conveying the materials and components from one part of the manufacturing or fabricating process to another, (2) the devices such as stamping machines, presses, cauldrons, vats, vessels, or chambers where the fabricating or processing occurs, and (3) the devices used to convey the finished products to packing or storage. However, it does not include the fuel used to run the manufacturing devices, the water or other substances used to cool the manufacturing devices or materials, the building housing the manufacturing devices, or the real property on which the manufacturing facility is located. Similarly, it does not include the raw materials or components used to produce the finished items of tangible personal property.<sup>46</sup>

As a tangible example of our understanding of Tenn. Code Ann. § 67-6-102(a)(13)(A), it would apply to the blast furnace at a steel mill. It would not, however, apply to the electricity used to heat the blast furnace, the water used to cool the process, or the ore or other raw materials placed in the blast furnace to make the steel. Likewise, it would not apply to the real property or building

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<sup>42</sup>“Apparatus” means “[t]he things collectively in which . . . [the preparing of things] consists, and by which its processes are maintained; equipments, material, mechanism, machinery.” 1 THE OXFORD ENGLISH DICTIONARY 561 (2d ed. 1989). It is also defined as “a collection or set of materials, instruments, appliances, or machinery designed for a particular use” or as “any compound instrument or appliance designed for a specific mechanical or chemical action or operation.” WEBSTER’S THIRD NEW INT’L DICTIONARY 102 (1971). The Tennessee Supreme Court used a version of the latter definition in *AFG Indus., Inc. v. Cardwell*, 835 S.W.2d at 585.

<sup>43</sup>“Equipment” refers to “the implements (as machinery or tools) used in an operation or activity.” WEBSTER’S THIRD NEW INT’L DICTIONARY 768 (1971). The Tennessee Supreme Court employed this definition in *Tibbals Flooring Co. v. Olsen*, 698 S.W.2d at 62.

<sup>44</sup>Webster’s Third New International Dictionary lists “equipment” and “machine” as synonyms for “apparatus.” It also lists “apparatus” and “machinery” as synonyms for “equipment,” and “equipment” as a synonym for “machinery.” WEBSTER’S THIRD NEW INT’L DICTIONARY 102, 768, 1354 (1971).

<sup>45</sup>BRYAN A. GARNER, A DICTIONARY OF MODERN LEGAL USAGE 292-94 (2d ed. 1995).

<sup>46</sup>Other specific exemptions apply to these items.

where the blast furnace was located or to the railroad cars carrying the ore to the plant or transporting the finished steel to market.

Our textual and syntactical construction of “machinery, apparatus and equipment” is buttressed by Senator Hamilton’s comments regarding the purpose of the 1984 amendatory language. Senator Hamilton never said that the purpose of the amendment was to broaden the industrial machinery exemption or to exempt catalysts used in the manufacturing process. He stated that the purpose of the amendment was “to clarify the definition” of industrial machinery to provide a “uniform standard” for determining whether machinery should be taxed. Senator Hamilton referred repeatedly to “machinery” during his explanation of the bill. These repeated references to “machinery” reflect a settled purpose to clarify rather than dramatically broaden the existing scope of the industrial machinery exemption.

Our construction of the phrase is also consistent with the Tennessee Supreme Court’s recent constructions of Tenn. Code Ann. § 67-6-102(a)(13)(A). In 1992, the Court was required to determine whether the molten tin used to shape and cool molten glass and to move the glass from one part of the manufacturing process to another fit within the industrial machinery exemption. After pointing out that the molten tin had replaced rolling machines, drying machines, and polishers, the Court found that the molten tin qualified for the exemption because it was an accessory to and part of the tin bath apparatus used to manufacture the glass. *AFG Indus., Inc. v. Cardwell*, 835 S.W.2d at 585.

Eastman places great significance in one of the dictionary definitions of “apparatus” cited in the *AFG Indus., Inc. v. Cardwell* opinion.<sup>47</sup> It reasons that the definition’s reference to “chemical actions or operations” necessarily means that catalysts must be exempt under Tenn. Code Ann. § 67-6-102(a)(13)(A) because their purpose is to promote chemical reactions. Eastman’s reliance is misplaced. In its *AFG Indus., Inc. v. Cardwell* decision, the Court was focusing on the “collection of component parts” portion of the definition, not the actions or operations taking place in the collection of component parts. As we understand *AFG Indus., Inc. v. Cardwell*, the Court viewed an “apparatus” as the device in which either a mechanical or chemical operation or action occurred. It did not envision that the chemicals or other materials placed in the apparatus on which the fabricating or processing occurred would also be considered part of the apparatus.

Two years later, the Court was asked to determine whether a parquet wood floor manufacturer’s dry-kiln and spoils removal and dust piping system were industrial machinery. The court, pointing out that “machinery” consisted of “machines functioning as a unit,” held that the dry-kiln was simply a specially insulated building, not a machine. *Tibbals Flooring Co. v. Huddleston*, 891 S.W.2d at 199. The Court also determined that the spoils removal and dust piping system was industrial machinery under Tenn. Code Ann. § 67-6-102(a)(13)(D)(i) because they were machines which, in combination with boilers, generated and produced electricity and steam used in the manufacturing process. While the Court cited the definition of “apparatus” found in *AFG Indus., Inc. v. Cardwell*, the definition played no direct role in the decision.

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<sup>47</sup>The definition that an “apparatus” is a collection of component parts “designed for a specific mechanical or chemical action or operation.” *AFG Indus., Inc. v. Cardwell*, 835 S.W.2d at 585.

Finally, we have reviewed other states' statutory exemptions for industrial machinery and the judicial construction of these statutes to determine the circumstances under which catalysts like the ones used by Eastman have been exempted from use tax. We have found nine states that have explicitly exempted catalysts from their use tax.<sup>48</sup> In those states that have not specifically exempted catalysts from use tax, we have found no decision in which a court has extended a general industrial machinery exemption to cover catalysts. Over the past twenty years, the Tennessee General Assembly has demonstrated its ability to draft and enact explicit use tax exemptions for specific types of industrial machinery. Had the General Assembly desired to exempt catalysts from the use tax, it could easily have done so. In the absence of a more specific exemption for catalysts, we decline to read one into Tenn. Code Ann. § 67-6-102(a)(13)(A).

Eastman, as the taxpayer seeking an exemption from taxation, has failed to demonstrate that Tenn. Code Ann. § 67-6-102(a)(13)(A) contains clear language supporting its claim for an exemption for its catalysts. Under the undisputed facts of this case, the "apparatuses" involved in Eastman's manufacturing process were the vessels and other containers in which the plastics and chemical compounds were processed. These apparatuses did not include the raw materials and catalysts placed in the vessels and containers. Because Eastman has been unable to demonstrate that its claimed exemption positively appears in Tenn. Code Ann. § 67-6-102(a)(13)(A), we reverse the trial court's decision upholding Eastman's claimed exemption for tax years 1995, 1996, and 1997.

#### IV.

We reverse the judgment and remand the case to the trial court with directions that Eastman's complaint be dismissed. We tax the costs of this appeal to Eastman Chemical Company for which execution, if necessary, may issue.

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WILLIAM C. KOCH, JR., J.

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<sup>48</sup> Ark. Code Ann. §§ 26-52-401(36)(A), 26-52-402(c)(2)(B)(iv) (2001); Idaho Code Ann. § 63-3622D(a)(3) (Supp. 2002); 35 Ill. Comp. Stat. 120/2-45(4) and 105/3-50(4) (Supp. 2003); Ky. Rev. Stat. Ann. § 139.470(11)(a)(2)(b) (Supp. 2002); Miss. Code Ann. § 27-65-101(1)(b) (Supp. 2002); N.J. Stat. Ann. § 54:32B-8.20 (2002); Ohio Rev. Code Ann. § 5739.011(B)(3) (Supp. 2002); Tex. Tax Code Ann. § 151.318(b)(1) (2002); Wyo. Stat. Ann. §§ 39-15-105(a)(iii)(A), 39-16-105(a)(iii)(A) (Supp. 2002).